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Breast Cancer Detection Via Wavelet Energy and Support Vector Machine

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Abstract

© 2018 IEEE. Breast cancer as one of the most feared killers of women, there are still no effective means of prevention and treatment on it. However, the popularity of its research continues to rise in academic field. The traditional medical diagnosis is mainly by observing the patient's symptoms to confirm the variety of diseases, but the efficiency is undesirable, and the scientific contribution is poor. At present, due to the dramatical development of the application of machine learning in data detection, the application of computer technology in disease diagnosis has become a new and effective means. This paper used the wavelet energy to extract features of breast cancer, then established a breast cancer predicting model, while re-use data grouping function of support vector machine (SVM), then algorithm would accurately distinguish the characteristics of the data among benign malignant tumors. So, the accuracy of intelligent diagnosis in breast cancer has be improved, and proven to be better than two state-of-the-art approaches.

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Keywords

disease diagnosis, machine learning, SVM, wavelet energy

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